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NPIC/TDS/D-1127-67
8 November 1967

MEMORANDUM FOR: Chief, Procurement Division, OL

ATTENTION : Chief, Contract Administration and Settlement Branch

SUBJECT : Contract [] with Corning Glass Works

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1. The subject contract is for the design and development of an improved rear projection screen material. In the attachment, the Contractor has requested permission to submit a paper relating to this subject for publication in Applied Optics.

2. Because the nature of the effort has been completely on an unclassified basis there is no objection to such a publication as long as such a publication does not compromise the classified association with the Agency.

3. It is, therefore, recommended that tentative permission be granted by the Contracting Officer to allow Corning to submit the paper for publication conditioned upon the following:

a. Their submittal of the complete paper to the Contracting Officer for review and final approval.

b. Their satisfying Logistics Security that the publication will not compromise the classified Agency association.

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Colonel, USAF

Assistant for Technical Development, NPIC

Attachments:

Corning Letter Dated 1 November 67

Distribution:

Orig & 1 - Addressee

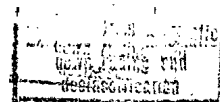
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NPIC/TDS/DS: [] (8 Nov 67)

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CORNING GLASS WORKS
CORNING
RALEIGH, NORTH CAROLINA

ELECTRONIC PRODUCTS DIVISION

3900 ELECTRONICS DRIVE
ZIP 27604
TEL: 919 828-0511

November 1, 1967

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Corning would like to submit a paper for publication relating to rear view screens. It would be for the April, 1968 issue of "Applied Optics" which will be devoted to the Company.

An abstract of the paper, which is written by [redacted] is enclosed. The paper itself has not yet been completed.

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May we have your approval for publication based on the abstract? We will be glad to send you a copy of the paper itself as soon as available, but hoped to save a little time.

Sincerely,

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[redacted]
Manager, Product Planning

MRS:ngw

Enclosure

PREDICTING THE OPTICAL PROPERTIES OF IMPROVED
REAR PROJECTION SCREEN MATERIALS



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Research and Development Laboratory
Corning Glass Works
Corning, New York 14830

The Mie Theory of light scattering is used to theoretically determine the relations linking the optical viewing properties such as axial gain, brightness, uniformity, efficiency, color fidelity and sensitivity to ambient light with the physical properties of the material, e.g., particle size, number density, and relative refractive index of the scattering particles.

From basic light-scattering data, all other optical properties are computed, including trade-offs required for different viewing requirements. Data from experimental investigations are given for a variety of volume scattering materials made by Corning Glass Works, to establish the validity of the theoretical calculations. The data also indicates that commercial rear projection screen materials do not exhibit the near-optimum performance of the Corning materials.